(A.18-07-024)

(3RD DATA REQUEST FROM THE INDICATED SHIPPERS)

DATA RECEIVED: 11-05-18
DATE RESPONDED: 11-21-18

QUESTION 3-1:

Please identify in the cost and rate model file, entitled "2020 TCAP SCG RD Model.xlsm", where the storage revenue requirement for the Reliability function of \$8.3 million shown in Table 23 at page 19 of the Prepared Direct Testimony of Sim-Cheng Fung, Chapter 8, is included in the model and allocated to customer classes. Please include in the response all tab and cell references to the model that allow for the identification of the allocation of the Reliability function related storage revenue requirement to each rate class.

RESPONSE 3-1:

The Reliability function cost of \$8.3 million is allocated between the Core Inventory (\$3.9 million) and Load Balancing Inventory (\$4.4 million) functions. The Core Inventory allocation of \$3.9 million and Load Balancing Inventory allocation of \$4.4 Million is a seasonal weighted average percent split based on withdrawal deliverability of 1,240 MMcfd on a year around basis. The allocated Reliability function costs are then added to the respective Core Inventory and Load Balancing Inventory function as follows:

(\$ millions), without Franchise fee & Uncollectibles (FF&U).

Core Inventory	\$32.6
Reliability Inventory	\$3.9
Sum Core Inventory	\$36.5
Load Balancing Inventory	\$6.3
Reliability Load Balancing	\$4.4
Sum Load Balancing	
Inventory	\$10.7

The Sum Core Inventory costs is inputted in the file titled "2020 TCAP SCG RD Model.xlsm", tab, "Model Input", cell D193 (without FF&U) and then it is allocated across customer classes in tab: "Cost Allocation", line 170 (with FF&U). The Sum Load Balancing Inventory cost is inputted in the file titled "2020 TCAP SCG RD Model.xlsm, tab, "Model Input", cell D196 (without FF&U) and then it is allocated across customer classes in tab, "Cost Allocation", line 178. Note the Sum Core Inventory and Sum Load Balancing Inventory costs shown in the Table above are rounded to the millions.

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QUESTION 3-2:

Please reconcile the total amount of storage revenue requirement allocated to classes in the rate model "2020 TCAP SCG RD Model.xlsm" in the amount of \$164.4 million with the storage revenue requirement amount of \$161.6 million included in Table 23 at page 19 of the Prepared Direct Testimony of Sim-Cheng Fung, Chapter 8. Please break out these two revenue requirements by rate base (plant in-service and working capital), operating expenses, other taxes, operating income and income taxes.

RESPONSE 3-2:

The storage revenue requirement of \$161.6 million in Chapter 8 does not include FF&U that Applicants are authorized to recover in rates. The amount of \$164.4 million in the rate model is derived by multiplying the amount of \$161.6 million by the FF&U factor of 101.737%.

Chapter 8, Table 22, p. 18 presents the primary components of the storage embedded cost.

Table 22			
SoCalGas Embedded Storage Cost			
	(\$MM)		
	2020-2022		
Capital-related Cost	71.2		
O&M, A&G Expenses	57.5		
Total Existing Storage	128.7		
ACTR	32.9		
Total Embedded Storage			
Cost	161.6		

The capital-related cost components (Depreciation, Return, Taxes) are shown in Table 4, p. 5. The O&M and A&G cost components are shown in Table 9, p. 8. The calculation of the ACTR revenue requirement is shown in footnote 59, p. 17.

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QUESTION 3-3:

Please provide the analytical basis relied upon by SoCalGas for allocating the storage revenue requirement to classes in the cost and rate model "2020 TCAP SCG RD Model.xlsm" on the basis of Average Year Throughput. Please include in the response all workpapers in electronic format with all formulas intact.

RESPONSE 3-3:

Chapter 9 (Schmidt-Pines) provides that "(i)n determining cost allocation, the following principles are followed by SoCalGas: allocate costs to customer classes based on cost causality, and maintain consistency with the existing practices whenever possible." (p. 2) The component of the storage embedded cost that is allocated across customer classes on the basis of Average Year Throughput in the 2020 TCAP SoCalGas rate model is the balancing function (commonly referred to as "Load Balancing"). Load Balancing refers to the service provided by the Applicants' System Operator to accommodate imbalances between a customer's actual usage and the gas it schedules for delivery to the system. The Load Balancing service is a year-round service. Customers' relative usage of the Load Balancing service is likely to depend on their respective level of gas usage. In the 2016 TCAP Phase 1 decision (D.16-06-039), the Commission, through its adoption of a settlement agreement, authorized the use of Average Year Throughput for allocating Load Balancing costs, which continued the longstanding practice of allocating these costs in this manner. Therefore, in accordance with the cost allocation principles of cost causation and maintaining consistency with existing practices, Applicants, find it reasonable that the cost associated with Load Balancing continue to be allocated based on Average Year Throughput in the same manner as they are today.

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QUESTION 3-4:

Please provide a version of the cost and rate model similar to the file entitled "2020 TCAP SCG RD Model.xlsm" which shows how the currently approved revenue requirement elements are allocated to classes and used to design current rates.

RESPONSE 3-4:

See attachment.



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DATA RECEIVED: 11-05-18
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QUESTION 3-5:

For total SoCalGas and for the categories of core customers and non-core customers, please provide the following information for each calendar year of the period 2013-2017:

- a. The actual hourly gas burned.
- b. The actual hourly delivered amount of gas.
- c. The hourly imbalance, which is the difference between the amounts in part a. and b. above.

RESPONSE 3-5:

SoCalGas objects to the question as requesting information that would be unduly burdensome to produce. Subject to and without waiving this objection, SoCalGas responds as follows.

- a. Actual hourly gas burn for total SoCalGas, and by categories of core customers and noncore customers does not readily exist.
- b. Actual hourly gas deliveries for total SoCalGas and by categories of core customers and non-core customers does not readily exist.
- c. Actual hourly imbalance for total SoCalGas and by categories of core customers and non-core customers is not available due to part b. of this question.

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QUESTION 3-6:

Please provide the same information requested in IS 3-5 for each customer class within both the core category and the non-core category.

RESPONSE 3-6:

SoCalGas objects to the question as requesting information that is unduly burdensome to produce. Subject to and without waiving this objection, SoCalGas responds as follows.

Please refer to Question 3-5. Additionally, hourly gas burn, deliveries, and imbalances by customer class within the core category do not exist.

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DATA RECEIVED: 11-05-18
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QUESTION 3-7:

For total SoCalGas and for the categories of core customers and non-core customers, please provide the following information for each of the calendar years in the period 2013-2017:

- a. Total coincident peak day demand.
- b. Total monthly volumes burned.
- c. Total monthly volumes delivered.
- d. Total monthly volume imbalance.

RESPONSE 3-7

ab. Please refer to the attached spreadsheet for parts a and b. The provided information is uncorrected operational data and should not be considered billing quality. SoCalGas undertook reasonable efforts to validate the accuracy of this information, but no representation is made that the contents are free from error. SoCalGas assumes no responsibility for use of, or reliance on, this information by any party, and specifically advises such parties to discuss any decisions or actions related hereto with their own advisors and experts.



c. SoCalGas objects to this question's use of the term "volumes delivered" as vague and ambiguous, and objects to the extent it seeks information that is highly market sensitive and confidential. Subject to and without waiving these objections, SoCalGas responds as follows. Based on SoCalGas' interpretation of the term "volumes delivered," which could mean gas receipts onto its system, this information can be directly obtained from SoCalGas' public archives available in ENVOY, "Informational Postings", "Operations", "Daily Operations", "Archive", selecting Daily Operations, the year and the month, and referencing column titled Total Receipts. This Envoy data can be accessed by pasting the following link into a web browser.

https://scgenvoy.sempra.com/index.html#nav=/Public/ViewExternalArchive.showArchive%3 FarchiveType%3Ddaily_operations%26rand%3D157

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d. SoCalGas objects to this question to the extent it seeks information that is highly market sensitive and confidential. Subject to and without waiving this objection, SoCalGas responds as follows. For total SoCalGas, the total monthly volume imbalance can be obtained from SoCalGas' public archives available in ENVOY, "Informational Postings", "Operations", "Daily Operations", "Archive", selecting Daily Operations, the year and the month, and referencing column titled Total Daily Customer Imbalance. This Envoy data can be accessed by pasting the following link into a web browser.

https://scgenvoy.sempra.com/index.html#nav=/Public/ViewExternalArchive.showArchive%3 FarchiveType%3Ddaily_operations%26rand%3D157

(3RD DATA REQUEST FROM THE INDICATED SHIPPERS)

DATA RECEIVED: 11-05-18
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QUESTION 3-8:

Please provide the same information requested in IS 3-7 for each customer class within both the core category and the non-core category.

RESPONSE 3-8:

SoCalGas objects to this question as vague and ambiguous with regards to the term "customer classes within the core and noncore categories," and objects to the extent it seeks information that is highly market sensitive and confidential. Subject to and without waiving this objection, SoCalGas responds as follows.

Monthly volumes delivered (received onto SoCalGas system) and monthly volume imbalance by customer class is not available.

Please see Response 3-7, including attachment.

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QUESTION 3-9:

Please provide the following information for each calendar year of the time period 2013-2017:

- a. SoCalGas's hourly system storage inventory level.
- b. SoCalGas's hourly system storage injections and withdrawals.
- c. The dates and times when SoCalGas called Low and High Operational Flow Orders ("OFOs") were in effect.

RESPONSE 3-9:

- a) On the ENVOY home page, in the Storage Inventory section, one can obtain each day's ending storage inventory in the Excel file link. Add to this number data published for Net Hourly Injection and Withdrawal on Oct 30, 2018 in ENVOY, "Informational Postings", "Notices", "Non-Critical", "Historic Hourly Operations_3". Taking the daily ending system inventory and adding the hourly net injection/withdrawal could yield a rough approximation of the hourly system storage inventory level.
- b) On Oct 30, 2018, SoCalGas published Hourly Operational data for Net Hourly Injection and Withdrawal reads to all parties via ENVOY under "Informational Postings", "Notices", "Non-Critical", "Historic Hourly Operations_3", "Net Injections.pdf". This Envoy data can be accessed by pasting the following link into a web browser.

https://scgenvoy.sempra.com/index.html#nav=/Public/ViewExternalEbb.getMessageLedger%3FfolderId%3D2%26rand%3D184

Disclaimer:

https://scgenvoy.sempra.com/ebb/attachments/1542827553990_Historic_Hourly_Operations.pdf

c) See attachment for SoCalGas's High and Low OFO Event History. This is available on ENVOY under "Informational Postings", "Operations", "High OFO Calculation" and "Low OFO Calculation".



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Also, SoCalGas OFOs are posted in ENVOY with cycle by cycle analysis within our annual customer forum reports. Those public postings are within "Informational Postings", "Notices", "Critical". Search on keywords – "Forum Report". This Envoy information can be accessed by pasting the following link into a web browser.

https://scgenvoy.sempra.com/index.html#nav=/Public/ViewExternalEbb.getMessageLedger%3FfolderId%3D1%26rand%3D85

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DATA RECEIVED: 11-05-18 **DATE RESPONDED: 11-21-18**

QUESTION 3-10:

Please provide for each day in the period 2013-2017 the following:

- The operational range in gas volume planned to be maintained (BCF) in SoCalGas' a. transmission system and distribution system of mains.
- The hourly maximum delivery rate (MMcf/day) for each pipeline interconnection b. point with SoCalGas's system.
- The hourly maximum storage injection and storage withdrawal rates (MMcf/day) C.
- Hourly and daily customer loads (BCF), and d.
- Daily average use of storage resources. e.

RESPONSE 3-10:

- a. SoCalGas operates its system between minimum and maximum operating pressures and does not have a daily goal.
- b. SoCalGas objects to this question as vague and ambiguous regarding the term "hourly maximum delivery rate . . . for each pipeline interconnection." Subject to and without waiving this objection, SoCalGas responds as follows. The gross daily operating capacity at each receipt point can be obtained from SoCalGas' public archives available in ENVOY, "Informational Postings", "Operations", "Capacity Utilization", "Archive", selecting Capacity Utilization, the year and the month, and referencing column titled Gross Operating Capacity. This Envoy data can be accessed by pasting the following link into a web browser.

https://scgenvoy.sempra.com/index.html#nav=/Public/ViewExternalArchive.showArchive%3 FarchiveType%3Dcapacity%26rand%3D159

Please refer to the attached spreadsheet.



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c. Please refer to the attached spreadsheet.



- d. Please refer to Response 3-5 and 3-7 of this data request.
- e. Please refer to Response 3-9 of this data request.

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DATA RECEIVED: 11-05-18
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QUESTION 3-11:

Please describe how storage assets are presently used by SoCalGas in providing gas service to each rate class. Please include in this response, a description of how much such storage capacity is currently used for each rate class in providing gas service, and a description of the monthly injection and withdrawals made for this function.

RESPONSE 3-11:

In the current TCAP period, SoCalGas has storage allocations of inventory, withdrawal, and injection for Core, Balancing, and the Unbundled Storage Program. Core and the Unbundled Storage Program can schedule injection and withdrawals. The SoCalGas System Operator operates storage as required to maintain the system, independently of nominations. Please refer to Chapter 1 (Dandridge) for storage allocations for the current TCAP period and those proposed for the 2020 TCAP period.

(3RD DATA REQUEST FROM THE INDICATED SHIPPERS)

DATA RECEIVED: 11-05-18
DATE RESPONDED: 11-21-18

QUESTION 3-12:

For each SoCalGas storage field, please provide the following information:

- a. Storage capacity currently used for meeting peak day demands
- b. Storage capacity currently used for load balancing on a daily basis.
- c. Storage capacity currently used for load balancing on an hourly basis.
- d. Storage capacity currently used to manage price risk.

RESPONSE 3-12:

Storage assets are operated as a combined system with respect to the types of information being requested, such that SoCalGas cannot provide the requested information.

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(3RD DATA REQUEST FROM THE INDICATED SHIPPERS)

DATA RECEIVED: 11-05-18
DATE RESPONDED: 11-21-18

QUESTION 3-13:

Please provide the following information for each SoCalGas storage field:

- a. Annual revenue requirement, broken out by rate base, operating expense, operating income and income taxes.
- b. Maximum injection and withdrawal rates.
- c. Number of wells.
- d. Maximum injection and withdrawal rates of each field well
- e. Working inventory volume.
- f. A description of all limitations to supply gas to areas on the delivery system that are constrained due to customer peak demands.

RESPONSE 3-13:

- a. SoCalGas does not track expenses by storage field broken out by rate base, operating expense, operating income and income taxes.
- b. See Table, columns C and D

(A)	(B)	(C)	(D)	(E)
Storage	Well	Max. Design	Max. Injection	Working Storage
Facility	Count *	Withdrawal	Capability	Inventory
		Capability*	(MMcfd)	Capacity,
		(Bcfd)		as presented in
				2020 TCAP
				(in Bcf)
Aliso Canyon	114	1.8	545	68.6
Honor	38	1.0	250	27
Rancho				
Playa Del	54	0.4	75	2.4
Rey				
La Goleta	20	0.4	130	21.5

^{*} Source: A.17-10-008 – SoCalGas 2019 General Rate Case, SCG-10-R Revised Direct Testimony of Neil Navin.

c. See table in response to 3-13, b), column B.

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- d. Applicants object to the question to the extent it seeks well-specific information that is highly market sensitive, confidential system operational information. This information is not publicly disclosed and is not released to market participants given the highly sensitive nature of the information.
- e. See table in response to 3-13, b), column E.
- f. SoCalGas objects to this question as vague and ambiguous. Subject to and without waiving this objection, SoCalGas responds as follows. Storage field utilization is not constrained by customer peak demand.

(3RD DATA REQUEST FROM THE INDICATED SHIPPERS)

DATA RECEIVED: 11-05-18
DATE RESPONDED: 11-21-18

QUESTION 3-14:

Please explain why SoCalGas now needs "Reliability" service in the instant rate case.

RESPONSE 3-14:

Applicants' rationale for the new Reliability function is already provided in Chapter 1, p. 14.

(3RD DATA REQUEST FROM THE INDICATED SHIPPERS)

DATA RECEIVED: 11-05-18
DATE RESPONDED: 11-21-18

QUESTION 3-15:

Has SoCalGas performed any study showing that it is cost-effective to establish "Reliability" service in comparison to operating without such service? In the response, please provide all workpapers in electronic format with all formulas intact.

RESPONSE 3-15:

Applicants object to the question as vague and ambiguous as to the term "cost effective to establish "Reliability" service . . ." Subject to and without waiving this objection, Applicants have already provided all workpapers related to its proposals and did not perform any additional study on the Reliability function proposal. The "Reliability" function is predicated on Applicants' expected need to provide withdrawal capability for daily operational needs throughout the year, and what Applicants believe to be a valid and reasonable use of its existing assets for managing system reliability.

(3RD DATA REQUEST FROM THE INDICATED SHIPPERS)

DATA RECEIVED: 11-05-18
DATE RESPONDED: 11-21-18

QUESTION 3-16:

Describe in detail how the "Reliability" function that SoCalGas has proposed in this rate case differs from the "Load Balancing" function.

RESPONSE 3-16:

The Load Balancing and Reliability function provide very different functions.

The Load Balancing is described in Chapter 1, p. 10, Section VI, "The Balancing Function." "The balancing function refers to the service provided by the System Operator to accommodate imbalances between a customer's actual usage and the gas it schedules for delivery to the system. These aggregate imbalances result in either under deliveries or over deliveries of gas to the system."

The Reliability Function is described in Chapter 1, p. 14, Section VII: "The 21 Bcf will provide the inventory required to provide a withdrawal deliverability of 1,240 MMcfd for all customers on the system, on a year-round basis."

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DATA RECEIVED: 11-05-18
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QUESTION 3-17:

Please explain what storage resources and costs SoCalGas has allocated to intra-day (hourly) load balancing in the past and explain how it has recovered these costs from customers.

RESPONSE 3-17:

SoCalGas has not allocated storage assets to intra-day balancing.

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DATA RECEIVED: 11-05-18
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QUESTION 3-18:

Under current system operating procedures, if SoCalGas calls an Operational Flow Order ("OFO") please describe in detail what customers are required to do.

RESPONSE 3-18:

Please see SoCalGas Tariff Rule 30, Section G, which can be found at this link:

https://www.socalgas.com/regulatory/tariffs/tm2/pdf/30.pdf

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QUESTION 3-19:

Does SoCalGas call Emergency OFOs on its system? Please describe all differences between an Emergency OFO and an OFO.

RESPONSE 3-19:

Please see SoCalGas Tariff Rule 30, Section G, which can be found at this link:

https://www.socalgas.com/regulatory/tariffs/tm2/pdf/30.pdf

(3RD DATA REQUEST FROM THE INDICATED SHIPPERS)

DATA RECEIVED: 11-05-18
DATE RESPONDED: 11-21-18

QUESTION 3-20:

Regarding D.16-06-039 in A.14-12-017:

- a. Does Table 6 on page 32 accurately portray the settlement agreement among the parties, that was adopted by the Commission, and was used to set rates? If not, please provide a table which accurately reflects what was used to set rates.
- b. The first full paragraph on page 39 states that the settling parties proposed (and the Commission apparently adopted) an allocation of storage costs one-third to inventory, one-third to injection and one-third to withdrawal. The decision language then notes that storage costs are allocated to core, load balancing and unbundled storage based on certain agreed-upon seasonalized capacity. Finally, Table 7 is created which summarizes the cost allocations to core, balancing and unbundled functions. Please provide the workpapers that support the allocations discussed in this paragraph and in the preparation of Table 7.
- c. The language at the bottom of page 39 says that SoCalGas and SDG&E are to perform a storage functionalization cost-causation study by inventory, injection and withdrawal functions in the next TCAP. Is Appendix G in this case what SoCalGas and SDG&E have prepared to comply with that requirement? If not, please identify what material in this case is intended to comply with that requirement.

RESPONSE 3-20:

- a. Yes.
- b. See attached file.



c. Yes.